UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/690,689 | 10/21/2003 | David J. Monnie | KLR/KAR:8474.0003 | 6131 |

152          7590          03/10/2008
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| EXAMINER |
|---|
| PRICE, NATHAN E |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2194 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 03/10/2008 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _03 December 2007_.
2a)☐ This action is **FINAL**.          2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-45_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-45_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

## DETAILED ACTION

1.      This Office Action is in response to communications received 03 December

2007.  Claims 1 – 45 are pending.  Previous objections and rejections not included in

this Office Action have been withdrawn.


### *Continued Examination Under 37 CFR 1.114*

2.      A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection.  Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114.  Applicant's submission filed on 03

December 2007 has been entered.


### *Response to Arguments*

3.      Applicant's arguments filed 03 December 2007 have been fully considered but

they are not persuasive.

        Regarding rejections based on the use of trademarks/trade names, the current

rejections are maintained due to problems associated with Applicant's attempt to amend

the specification.  See "Specification" section of this Office Action.

        Applicant argues the cited teachings fail to disclose a reference in the queue that

identifies the object in the shared memory.  As conceded by Applicant, the cited

teachings disclose a reference in the queue indicating a memory location of the object

(see ¶2 of p. 11 of 12 of REMARKS / ARGUMENTS filed 03 December 2007).  As

argued, the disputed point appears to be whether or not indicating a memory location of

the object constitutes an object reference that identifies an object in shared memory as

claimed.  Applicant's own specification indicates that a reference to an object address or

location performs the function of the object reference (Specification p. 25 ¶3).

Therefore, Applicant's arguments are not persuasive.


## Specification

4.      Applicant's attempt to amend the specification is not clear as to which paragraph

is to be replaced.  It is not clear which paragraph is being identified by "page 7, line 17,

([0036])" because [0036] appears to refer to the published application, but does not

appear to correspond to page 7, line 17 of the published application or the originally

filed specification.  It is respectfully requested that Applicant refer to a specific location

of the originally filed specification to identify the paragraph to be replaced.


## Claim Objections

5.      Claims 1, 10, 25 and 40 are objected to because of the following informalities:

There are two "(ii)" identifiers below the "(a)" identifier in claim 1.

There is insufficient antecedent basis for "said non-object oriented program" in

claims 10, 25 and 40.

Appropriate correction is required.

## *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6.		Claims 12, 27 and 42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It does not appear that the original disclosure supports the recited object reference that comprises a reference to one of the applications. The original disclosure supports a reference to one of the applications being stored in the queue, but this reference is not part of the object reference as claimed (Fig. 12, object reference 418, application reference 420; Specification p. 25 ¶3).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7.		Claims 6 – 8, 21 – 23 and 36 – 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 – 8, 21 – 23 and 36 – 38 contain the trademark/trade name Java.

Where a trademark or trade name is used in a claim as a limitation to identify or

describe a particular material or product, the claim does not comply with the

requirements of 35 U.S.C. 112, second paragraph.  See *Ex parte Simpson*, 218

USPQ 1020 (Bd. App. 1982).  The claim scope is uncertain since the trademark or trade

name cannot be used properly to identify any particular material or product.  A

trademark or trade name is used to identify a source of goods, and not the goods

themselves.  Thus, a trademark or trade name does not identify or describe the goods

associated with the trademark or trade name.  In the present case, the trademark/trade

name is used to identify/describe a programming environment or a company and,

accordingly, the identification/description is indefinite.

## *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.      Claims 1 – 4, 6, 9 – 11, 13 – 19, 21, 24 – 26, 28 – 34, 36, 39 – 41 and 43 – 45

are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranston et al. (US

6,829,769 B2; hereinafter Cranston) in view of Galluscio et al. (US 7,152,231 B1;

hereinafter Galluscio).

9.      As to claim 1, Cranston teaches a system for the concurrent operation of plural

computer applications, said system comprising:

        (a)      a computer storage medium including a shared object space selectively

              connectable to each of a plurality of computer applications, said shared

              object space capable of storing:

              (i)      a plurality of objects accessible to each of said plural computer

                     applications connected to said shared object space [col. 3 lines 14

                     – 36]; and

              (ii)     a queue associated with said shared object space and capable of

                     storing a plurality of object references, each object reference

                     received from one of said plural computer applications and

                     identifying an individual object [col. 3 lines 14 – 36]; and

        (b)      at least one computer comprising at least two computer applications

              concurrently executing, a particular object updateable by one of said

              concurrently executing applications when said one application is

              connected to said shared object space and in control of an object

              reference from said queue identifying said particular object [col. 3 lines 14

              – 36; col. 11 line 65 – col. 12 line 2].

10.     Cranston fails to specifically teach that each said computer application operating

in its own virtual machine.  However, Galluscio teaches or at least implies that each said

computer application operating in its own virtual machine by suggesting the use of Java

[col. 6 lines 5 – 17]. Furthermore, Galluscio teaches at least one computer comprising

at least two computer applications concurrently executing on respective virtual

machines, a particular object updateable by one of said concurrently executing

applications when said one application is connected to said shared object space and in

control of an object reference from said queue identifying said particular object

[abstract; col. 2 lines 17 – 21; col. 6 lines 5 – 17]. It would have been obvious to one of

ordinary skill in the art at the time Applicant's invention was made to combine these

teachings because Cranston does not specify a programming language and Galluscio

lists languages [col. 6 lines 5 – 17] that may be used in a similar communication system

that uses a shared memory region and message queue [abstract].

11.     As to claim 2, Cranston teaches the queue is a predefined type [col. 3 lines 14 –

36].

12.     As to claim 3, Cranston teaches the queue is customized [col. 8 lines 28 – 48].

13.     As to claim 4, Cranston modified by Galluscio teaches the queue is a "first-in-

first-out" queue [Galluscio: col. 5 lines 47 – 56].

14.     As to claim 6, Cranston modified by Galluscio at least implies each said virtual

machine comprises a computer executable instruction in conformance with Java Virtual

Machine Specification, said instruction executing on said computer [Galluscio: col. 6 lines 5 – 17].

15.     As to claim 9, Cranston modified by Galluscio at least implies the shared object space is operably connectable to a non-object-oriented application [Galluscio: col. 6 lines 5 – 17].

16.     As to claim 10, Cranston modified by Galluscio teaches the non-object oriented program is a "C" program [Galluscio: col. 6 lines 5 – 17].

17.     As to claim 11, Cranston modified by Galluscio teaches access to at least one of said plurality of objects by said plural computer applications is synchronized [Galluscio: col. 6 line 58 – col. 7 line 4].

18.     As to claim 13, Cranston teaches the plural computer applications pertain to at least one of: (a) stock trading; (b) communications processing; and (c) internet services [col. 3 lines 14 – 36].

19.     As to claim 14, Cranston teaches at least one of said plurality of objects is copy shared among said plural applications [col. 3 lines 14 – 36].

20.     As to claim 15, Cranston modified by Galluscio teaches at least one of said

plurality of objects is direct shared among said plural applications [Galluscio: col. 4 lines

28 – 46].


21.     As to claim 16, see the rejection of claim 1.  Cranston further teaches the queue

receiving said references from a first set of said applications and releasing said

references to a second set of applications [col. 3 lines 14 – 36].


22.     As to claims 17– 19, 21, 24 – 26, 28 – 30, see the rejection of claims 2 – 4, 6, 9 –

11, 13 – 15.


23.     As to claim 31, see the rejection of claim 1.  Cranston further teaches the at least

one application both storing said references in said queue and receiving said references

from said queue [col. 3 lines 14 – 36].


24.     As to claims 32 – 34, 36, 39 – 41, 43 – 45, see the rejection of claims 2 – 4, 6, 9

– 11, 13 – 15.


25.     Claims 5, 20 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cranston (US 6,829,769 B2) in view of Galluscio (US 7,152,231 B1) as applied to

claims 1, 16 and 31 above, and further in view of Martin et al. (US 7,017,160 B2;

hereinafter Martin).

26.     As to claims 5, 20 and 35, Cranston fails to specifically teach a "last-in-first-out" queue.  However, Martin teaches the queue is a "last-in-first-out" queue [col. 5 lines 39 – 58].  It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because Cranston teaches using queues to manage object sharing [col. 4 lines 1 – 16] and Martin teaches other structures, such as a FIFO, can be used [col. 5 lines 39 – 58].

27.     Claims 7, 8, 12, 22, 23, 27, 37, 38 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranston (US 6,829,769 B2) in view of Galluscio (US 7,152,231 B1) as applied to claims 1, 6, 16, 21, 31 and 36 above, and further in view of Jaworski (Jaworski, Jamie, "Java 1.1 Developer's Guide," Second Edition, Sams.net Publishing, 1997; pages 3-10 and 983-990.).

28.     As to claims 7, 22 and 37, Cranston fails to specifically teach a Native Method Interface.  However, Jaworski teaches the shared object space is connected to each said virtual machine through a Native Method Interface [page 984, Java Native Interface].  It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because Cranston combined with Galluscio teaches sharing objects with programs developed in different languages including C, C++ and Java and provides an example in C [Galluscio: col. 6

lines 5 – 30] and Jaworski teaches how to enable Java to use C and C++ programs for

features not available in Java [page 984].


29.     As to claims 8, 23 and 38, Cranston modified by Jaworski teaches the system

includes a default directory with a native language library file [Jaworski: page 989,

Creating a Shared Library].


30.     Claims 12, 27 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cranston (US 6,829,769 B2) in view of Galluscio (US 7,152,231 B1) as applied to

claims 1, 16 and 31 above, and further in view of Silberschatz (Silberschatz et al.,

"Applied Operating System Concepts," First Edition, John Wiley & Sons, Inc., 2000;

pages 87-114.).


31.     As to claims 12, 27 and 42, Cranston fails to specifically teach the object

reference further comprises a reference to one of said computer applications as

claimed.  However, Silberschatz teaches the object reference further comprises a

reference to one of said computer applications [p. 103 ¶1; p. 104 2$^{nd}$ to last ¶].  It would

have been obvious to one of ordinary skill in the art at the time Applicant's invention was

made to combine these teachings because Silberschatz teaches logical

implementations, including the information that must be provided, of communication and

Cranston teaches a physical implementation of communication between processes.

### *Conclusion*

32.     Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN PRICE whose telephone number is (571)272-4196.  The examiner can normally be reached on 6:00am - 2:30pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718.  The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.  Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP
/Thomson D. William/
Supervisory Patent Examiner, Art Unit 2194